DETAILED ACTION

1. This action is in response to the amendment filed on 5/9/11.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

3. Claim 18 is objected to because of the following informalities: In claim 18, line 11 delete "water a water" and insert therein - - a water - - for clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. Claims 1, 2, 5, 6, 8, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mallik (U.S. Patent Application Publication 2003/0102080) in view of Heise et al. (U.S. Patent 2,805,172).

Mallik discloses a method for applying a polymeric label of for example polyethylene adipate, polypropylene succinate, etc., considered a polyethylene or polypropylene polymeric label to a container of for example glass. Mallik teaches the method consists of applying a layer of animal glue and water to a polymeric label, drying the layer to form a solid, water activatable animal glue layer, applying a sufficient amount of water to activate the animal glue, and fastening the label to a container by drying the water activated layer of animal glue (Figures 1 and 2 and Paragraphs 0013, 0018, and 0020-0023).

Regarding the limitations of "a hydrophilic solid material", "a tacky fastenable adhesive", and "curing the polymeric label", the material, i.e. animal glue, and method, i.e. applying the animal glue with water, drying, activating with water, applying, and drying, taught by Mallik is consistent and in agreement with that claimed and disclosed in applicants specification as a hydrophilic solid material that forms a tacky fastenable adhesive when activated with water and cures by drying to fasten the label to the container such that the method taught by Mallik is considered to necessarily result in the same.

Regarding the limitation of "water containing a cross-linking agent", Mallik is silent as to using any particular animal glue or water activator. However, it was known in the art that the animal glue include an alkaline salt, e.g. 90 dry parts animal glue and 10 dry parts alkaline salt, considered a cross-linking agent in a aqueous dispersion and the water activator include water, glyoxal, a cross-linking agent, and an acid or acid salt such that the animal glue will form a water resistant bond between a label and a substrate such as a bottle as shown by Heise (Column 1, lines 15-33 and Column 3, lines 8-20 and Example II). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the animal glue and water activator taught by Mallik the animal glue and water activator shown by Heise to form a water resistant bond between the label and the container. Regarding claims 5, 6, and 8, water, cross-linking agent, and an acid or acid salt is considered water containing an effective amount of a crosslinking agent and a water based activator containing an effective amount of a cross-linking agent.

Regarding claim 9, Mallik and Heise are silent as to the specific amount of animal glue applied. Absent any unexpected results, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to experimentally determine the amount of animal glue required in Mallik as modified by Heise as a function of achieving an adequate bond between the label and container wherein because the material and method taught by Mallik as modified by Heise is consistent and in agreement with that disclosed by applicant and both result in an adequate bond one of ordinary skill would readily expect to use the same in Mallik as modified by Heise as claimed. It is noted that applicants specification discloses 0.25 to 8 lbs./3000 square feet is employed (Page 24, lines 15-21), and the claimed range is 120 to 4300 lbs./3000 square feet such that it appears the claimed range may be in error. Further, the specification does not show any unexpected result for either of the ranges of amounts other than these amounts result in an adequate bond.

5. Claims 10, 11, 13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mallik and Heise as applied to claims 1, 2, 5, 6, 8, 9, and 11 above, and further in view of Dronzek (U.S. Patent Application Publication 2001/0035265).

Regarding claims 10, 11, and 13, in the event the water soluble salt taught by Heise is not necessarily considered a cross-linking agent the following rejection would apply also to claim 11. Mallik and Heise teach all of the limitations in claims 10, 11, and 13 as applied above except for a specific teaching of additional additives included with the animal glue. It was known in the art of using water activated adhesive in labeling that the adhesive include a slip aid to prevent excessive friction between the adhesive and label and humectants such as urea or glycerin (also cross-linking agents) to impart layflat properties to the label as shown by Dronzek (Paragraphs 0045, 0048, and 0050-0063). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the animal glue taught by Mallik as modified by Heise

known additives such as a slip aid or humectants as shown by Dronzek to prevent excessive friction between the glue and the label and impart layflat properties to the label.

Regarding claim 18, Heise teaches a water activator solution including water, cross-linking agent, and an acid or acid salt. However, there is no criticality that the solution is made using water. The criticality in Heise for the benefit of forming the water resistant bond is a function of including the alkaline salt in the animal glue and including glyoxal, i.e. the cross-linking agent, and an acid or acid salt in the water activator solution. It was known in the art of using water activated adhesive in labeling that the adhesive is activated with a water activator solution of water or water based adhesive with the additional additives of crosslinking agent, etc. as shown by Dronzek (Paragraphs 0037, 0040, and 0041). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the water in the water activator solution taught by Mallik as modified by Heise with a water based adhesive a known suitable alternative to water in the water activator solution as shown by Dronzek including for the obvious benefit that the water based adhesive promotes better adhesion between the glue and container than water alone.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mallik and Heise as applied to claims 1, 2, 5, 6, 8, 9, and 11 above, and further in view of Leiner et al. (U.S. Patent 2,985,605).

In the event the water soluble salt taught by Heise is not necessarily considered a cross-linking agent the following rejection would apply. Heise is not limited to any particular water soluble salt and suggests alkali salts such as sodium (Column 5, lines 44-49). It was known in the art of using an animal glue with an alkali salt to use as the salt an alkali, e.g. sodium, salt of

trimethylophenol, a cross-linker for the animal glue, to improve the bond strength of the glue as shown by Leiner (Column 2, lines 16-24 and 70-72 and Column 3, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the alkali salt in Mallik as modified by Heise the specific salt taught by Leiner to improve the bond strength of the glue.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mallik, Heise, and Leiner as applied to claim 11 above, and further in view of Dronzek.

Mallik and Heise teach all of the limitations in claim 13 as applied above except for a specific teaching of additional additives included with the animal glue. Dronzek is fully described above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the water based adhesive taught by Mallik as modified by Heise and Leiner a slip aid as shown by Dronzek to prevent excessive friction between the glue and the label.

8. Claims 1, 2, 5, 6, 8, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Squier et al. (U.S. Patent Application Publication 2002/0146520) in view of Mallik and Heise.

Squier discloses a process for applying a polyethylene or polypropylene polymeric label (Figure 1) to a glass or plastic container by applying a water based adhesive thereto, e.g. protein and water, and fastening the label to the container (Paragraphs 0032, 0045, 0047, 0064, 0066, 0089). Squier does not require any specific process of using the water based adhesive or any particular water based adhesive. It is common in the art of labeling using a water based adhesive as in Squier that the process consists of applying the label directly to the container with the

water-based adhesive in a wet state or pre-coating the label with the water based adhesive, drying the coated adhesive to form a label for later application, applying a sufficient amount of activator such as water to reactivate the adhesive, and then fastening the label to the container as evidenced by Mallik (Paragraph 0021). Further, it was known in the labeling art when using a reactivated adhesive that the animal glue include an alkaline salt, e.g. 90 dry parts animal glue and 10 dry parts alkaline salt, considered a cross-linking agent in an aqueous dispersion and the water activator include water, glyoxal, a cross-linking agent, and an acid or acid salt such that the animal glue will form a water resistant bond between a label and a substrate such as a bottle as shown by Heise. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the water based adhesive taught by Squier in a reactivated adhesive process as such use is one of two common processes for predictably using the water based adhesive as evidenced by Mallik it being further obvious that the reactivatable water based adhesive based on protein and water is the animal glue and water activator shown by Heise to form a water resistant bond between the label and the container.

Regarding the limitations of "a hydrophilic solid material", "a tacky fastenable adhesive", and "curing the polymeric label", the material, i.e. animal glue, and method, i.e. applying the animal glue with water, drying, activating with water, applying, and drying, taught by Squier as modified by Mallik and Heise is consistent and in agreement with that claimed and disclosed in applicants specification as a hydrophilic solid material that forms a tacky fastenable adhesive when activated with water and cures by drying to fasten the label to the container such that the method taught by Squier as modified above is considered to necessarily result in the same.

Regarding claims 5, 6, and 8, water, cross-linking agent, and an acid or acid salt is considered water containing an effective amount of a crosslinking agent and a water based activator containing an effective amount of a cross-linking agent.

Regarding claim 9, Squier, Mallik, and Heise are silent as to the specific amount of animal glue applied. Absent any unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the amount of animal glue required in Squier as modified by Mallik and Heise as a function of achieving an adequate bond between the label and container wherein because the material and method taught by Squier as modified by Mallik and Heise is consistent and in agreement with that disclosed by applicant and both result in an adequate bond one of ordinary skill would readily expect to use the same in Squier as modified by Mallik and Heise as claimed. It is noted that applicants specification discloses 0.25 to 8 lbs./3000 square feet is employed (Page 24, lines 15-21), and the claimed range is 120 to 4300 lbs./3000 square feet such that it appears the claimed range may be in error. Further, the specification does not show any unexpected result for either of the ranges of amounts other than these amounts result in an adequate bond.

9. Claims 10, 11, 13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Squier, Mallik, and Heise as applied to claims 1, 2, 5, 6, 8, 9, and 11 above, and further in view of Dronzek.

Regarding claims 10, 11, and 13, in the event the water soluble salt taught by Heise is not necessarily considered a cross-linking agent the following rejection would apply also to claim 11. Squier, Mallik, and Heise teach all of the limitations in claims 10, 11, and 13 as applied above except for a specific teaching of additional additives included with the animal glue. It was

known in the art of using water activated adhesive in labeling that the adhesive include a slip aid to prevent excessive friction between the adhesive and label and humectants such as urea or glycerin (also cross-linking agents) to impart layflat properties to the label as shown by Dronzek. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the animal glue taught by Squier as modified by Mallik and Heise known additives such as a slip aid or humectants as shown by Dronzek to prevent excessive friction between the glue and the label and impart layflat properties to the label.

Regarding claim 18, Heise teaches a water activator solution including water, cross-linking agent, and an acid or acid salt. However, there is no criticality that the solution is made using water. The criticality in Heise for the benefit of forming the water resistant bond is a function of including the alkaline salt in the animal glue and including glyoxal, i.e. the cross-linking agent, and an acid or acid salt in the water activator solution. It was known in the art of using water activated adhesive in labeling that the adhesive is activated with a water activator solution of water or water based adhesive with the additional additives of crosslinking agent, etc. as shown by Dronzek. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the water in the water activator solution taught by Squier as modified by Mallik and Heise with a water based adhesive a known suitable alternative to water in the water activator solution as shown by Dronzek including for the obvious benefit that the water based adhesive promotes better adhesion between the glue and container than water alone.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Squier, Mallik, and Heise as applied to claims 1, 2, 5, 6, 8, 9, and 11 above, and further in view of Leiner.

In the event the water soluble salt taught by Heise is not necessarily considered a cross-linking agent the following rejection would apply. Heise is not limited to any particular water soluble salt and suggests alkali salts such as sodium. It was known in the art of using an animal glue with an alkali salt to use as the salt an alkali, e.g. sodium, salt of trimethylophenol, a cross-linker for the animal glue, to improve the bond strength of the glue as shown by Leiner. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the alkali salt in Squier as modified by Mallik and Heise the specific salt taught by Leiner to improve the bond strength of the glue.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Squier, Mallik, Heise, and Leiner as applied to claim 11 above, and further in view of Dronzek.

Squier, Mallik, and Heise teach all of the limitations in claim 13 as applied above except for a specific teaching of additional additives included with the animal glue. Dronzek is fully described above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the water based adhesive taught by Squier as modified by Mallik, Heise, and Leiner a slip aid as shown by Dronzek to prevent excessive friction between the glue and the label.

Double Patenting

12. Claims 1, 2, 5, 6, 8-11, and 13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 7,090,740 in view of Heise and Mallik or Squire. Claims 1-4 of U.S. Patent No. 7,090,740 fully encompass claims 1, 2, 5, 6, 8-11, and 13 of the instant application except for a teaching of the hydrophilic solid material comprising at least 30% by dry weight of animal glue and cross-linking agent and the water activator including a cross-linking agent it being obvious to one of ordinary skill in the art at the time the invention was made to use as the hydrophilic solid material and water activator the specific animal glue and water activator shown by Heise (fully described above) to form a water resistant bond between the label and the container. It would have been further obvious to one of ordinary skill in the art at the time the invention was made to use as the polymeric label that known as suitable in the art such as polyethylene or polypropylene as shown by Mallik or Squire. Claim 10 is further rejected in view of Dronzek as it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the animal glue a slip aid as shown by Dronzek to prevent excessive friction between the glue and the label.

13. Claim 18 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 7,090,740, Heise and Mallik or Squire as applied to claims 1, 2, 5, 6, 8-11, and 13 above, and further in view of Dronzek. Claims 1-4 of U.S. Patent No. 7,090,740 as modified by Heise and Mallik or Squire above fully encompass claim 18 of the instant application except for a teaching that the water activator solution include water based adhesive. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the water in the water activator solution taught by claims 1-4

of U.S. Patent No. 7,090,740 as modified by Heise and Mallik or Squire with a water based adhesive a known suitable alternative to water in the water activator solution as shown by Dronzek including for the obvious benefit that the water based adhesive promotes better adhesion between the glue and container than water alone.

Response to Arguments

14. Applicant's arguments with respect to claims 1, 2, 5, 6, 8-11, 13, and 18 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues, "The claims were previously amended to recite that the label is a polyethylene or polypropylene polymeric label in response to a rejection over Mallik in view of Heise. That rejection was withdrawn in the Office Action of June 1, 2010. It is believed that the present claims avoid the "Mallik reference which only discloses the use of polymers other than polyethylene and polypropylene where such other polymers have a MTVR of more than 100gm/m^2/24h/mil. A copy of a plastics comparison chart published by the Alpha Packaging Company is of record in the present application, That reference shows that the polylactide used by Mallik has an MVTR of 18-22 g-mil/100in^2/24h and polyethylene and polypropylene have an MVTR of 0.5 g-mil/100in^2/24h which is approximately equivalent to 7.8 100gm/m^2/24h/mil. The use of these polymers is not made obvious by the Mallik patent which requires a minimum MVTR of 100g/m^2/24h.".

Mallik is not applied as teaching a polyactide polymeric label. Mallik expressly teaches polyethylene adipate polymeric labels and polypropylene succinate polymeric labels. Polyethylene given its broadest reasonable interpretation is a genus of polyethylene polymers

were polyethylene adipate is a species of the genus and polypropylene also given its broadest reasonable interpretation is a genus of polypropylene polymers were polypropylene succinate is a species of the genus such that Mallik teaches a polyethylene or polypropylene polymeric label. The terms polyethylene or polypropylene are not defined in the claims or specification in such a way as to preclude this interpretation. The terms do not require for example a polyethylene consists of polyethylene homopolymer.

Applicant further argues, "Mallik is further distinguished by the fact that it is only concerned with a wet applied adhesive system as illustrated at paragraph [0022] where wet cold glue is applied to a glass surface and then a polymer film is applied to the wet cold glue on the surface of the glass.".

Mallik is not limited to a wet system. Mallik expressly described in paragraph 0021 the drying and reactivating system set forth in the rejection.

Applicant further argues, "Heise is concerned with a animal glue that contains both an alkaline salt and glyoxal that is used on paper and not on a polymer. This reference does not mention polyethylene or polypropylene or any other polymer and therefore there is no reason to combine this reference with Mallik.".

Reason for combining Heise with Mallik is expressly set forth in the rejection above. The benefit of forming the water resistant bond described in Heise is a function of including the alkaline salt with the animal glue and including glyoxal and an acid or acid salt with the activator there being no criticality that the label is a paper label such that one of ordinary skill in the art selecting animal glue and activator for the polymeric label as directed by Mallik would readily look to the animal glue and activator taught by Heise for the described benefit.

Applicants further argue, "Squire stressed that a particular cavitated polymer film having a polyethylene or polypropylene skin is to be used as the label stock while Mallik teaches that the polymer must have a MTVR of more than l00gm/m^2/24h/mil which excludes cavitated polyethylene or polypropylene.".

Squire expressly teaches the use of water based adhesive such as protein and water for fastening the polyethylene or polypropylene polymeric label. Mallik is only applied as evidence of the two common processes for using this type of water based adhesive to predictably fasten the label where Heise expressly describes a benefit to using a reactivated water based adhesive. Mallik cannot be considered to teach away from the use of the polyethylene or polypropylene polymeric label of Squire with an animal glue as Squire expressly teaches the label is used with water based adhesive such as protein and water. Further, Squire and Mallik are analogous as each is directed to fastening a label using a water based adhesive such as protein and water.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **JOHN GOFF** whose telephone number is **(571)272-1216**. The examiner can normally be reached on M-F (7:30 AM - 4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katarzyna Wyrozebski can be reached on (571) 272-1127. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN GOFF/
Primary Examiner, Art Unit 1746